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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,792	03/22/2004	Eric Gustave Lundquist	A01041A	9932

21898 7590 06/16/2006

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EXAMINER
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WU, IVES J

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/805,792	Applicant(s) LUNDQUIST, ERIC GUSTAVE	
	Examiner Ives Wu	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 21-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 21-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

(1). Applicant's Remarks and Amendments filed on May 3, 2006 have been received and acknowledged.

Claims 34 – 36 are canceled. The total canceled claims are 5-20 and 34-36.

The 112 1<sup>st</sup> paragraph rejection of claims 34-36 in the prior Office Action dated January 3, 2006 is removed in response to the Cancellation of Applicant's Amendments filed on May 3, 2006.

The rejection of claims 34-36 in the prior Office Action dated January 3, 2006 is also removed in response to the Cancellation of Applicant's Amendments filed on May 3, 2006.

However, the rejections of claims 1-4 and 21-33 in the prior Office Action dated January 3, 2006 are sustained.

### *Claim Rejections - 35 USC § 102/103*

(2). The text of those Section Title 35 U. S. Code not included in this Office Action can be found in prior Office Action dated January 3, 2006.

(2). **Claims 1-4 and 21-33** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lundquist (US005233096A) for the same rationale recited in Office Action dated January 3, 2006.

### *Response to Arguments*

Applicant's arguments filed on May 3, 2006 have been fully considered but they are not persuasive.

Although Applicant provides the unexpected results by using the Example 3 of closest prior art reference Lundquist (US005233096A), the showing is not commensurate in scope with the claims. For examples, the sulfuric acid concentration used in applicant's example is higher than that of prior art. Furthermore, in the Applicant's teaching, it recites: It was found that granules or beads of PS/DVB copolymer may be sulfone cross-linked and functionalized with a particular sulfonating reagent mixture in an efficient and controllable manner (Page 8, line 19-

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29). We have found that by adjusting the concentration of the sulfuric acid/SO<sub>3</sub> mixtures, also known as oleum, having acid concentrations of between 101.0% and 104.5% be used as the sulfonating agents to introduce both sulfone bridging groups and at least one sulfonic acid group per aromatic nucleus (Page 8, line 30 – Page 9, line 11). Therefore, it is the acid condition that makes difference. Applicant also argues that Lundquist (US005233096A) fails to disclose, teach or suggest the limitation of “the catalyst contains 0.1 to 1.0 millimole sulfone groups per gram dry catalyst” in present claims 1 and 26. However, in view of the fact that the disclosure of Lundquist (US005233096A) meets the catalyst composition as claimed by applicant, it would inherently possess the physical properties of 0.1 to 1.0 millimole sulfone groups per gram dry catalyst. *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ives Wu whose telephone number is 571-272-4245. The examiner can normally be reached on 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Ives Wu

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Date: June 9, 2006



DAVID W. WU  
ASSISTANT PATENT EXAMINER  
TECHNOLOGY CENTER 1700